



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,429	07/20/2001	Robert T. Baum	Bell-32	2654

32127 7590 09/11/2006

VERIZON  
PATENT MANAGEMENT GROUP  
1515 N. COURTHOUSE ROAD, SUITE 500  
ARLINGTON, VA 22201-2909

EXAMINER

PYZOCHA, MICHAEL J

ART UNIT	PAPER NUMBER
----------	--------------

2137

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/910,429	BAUM, ROBERT T.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael Pyzocha	2137	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24, 26-28 and 30-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24, 26-28 and 30-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/9/06</u> .                                                              | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. Claims 1-24, 26-28, and 30-38 are pending.
2. Amendment filed 07/24/2006 has been received and considered.

***Information Disclosure Statement***

3. The information disclosure statement filed 08/09/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the O'Hanlon reference has not been considered.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2137

5. Claims 1-4, 6, 14-16, 33-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valencia et al ("Cisco Layer Two Forwarding (Protocol) 'L2F'" ) in view of Wallace (U.S. 5,988,497).

As per claims 1 and 33, Valencia et al discloses authentication for use with a network in which packets entering the network have at least part of layer 2 header information replaced with a unique bit string by examining at least a part of the unique bit string; comparing the at least a part of the unique bit string examined with information; and authenticating the party only if the at least a part of the unique bit string examined matches the information (see pages 10-11 and 14).

Valencia et al fails to disclose the authentication is used to authenticate a party involved in a transaction and the compared information is stored.

However, Wallace teaches such transactions authentication and stored information (see column 1 line 63 through column 2 line 3).

At the time of the invention it would have been obvious to a person of ordinary skill in the art for the packets of Valencia et al to be used for transaction authentication.

Motivation to do so would have been to validate a transaction (see column 1 line 63 through column 2 line 3).

Art Unit: 2137

As per claims 2, 34 the modified Valencia et al and Wallace system discloses approving a transaction if the party was authenticated (see Wallace column 2 lines 16-29).

As per claim 3, the modified Valencia et al and Wallace system disclose the at least a part of the unique bit string examined depends on a type of the transaction (see Wallace column 2 lines 5-15).

As per claims 4, 6, the modified Valencia et al and Wallace system disclose the stored information compared with the at least a part of the unique bit string examined depends on a type of the transaction (see Wallace column 2 lines 5-15).

As per claims 14-15, the modified Valencia et al and Wallace system discloses the unique bit string is provisioned and controlled by a network service provider (see Wallace column 2 lines 5-29).

As per claim 16, the modified Valencia et al and Wallace system discloses the act of authentication does not require the transmission of any authentication information from the party (see Wallace column 2 lines 5-29).

As per claims 35-36 the modified Valencia et al and Wallace system discloses an output for forwarding an authentication and authorization response to the transaction facility (see Wallace column 1 lines 52-62).

As per claim 37, the modified Valencia et al and Wallace system discloses the layer 2 header information is one of data link layer header and a network access layer header (see Valencia et al pages 10-11 and 14).

6. Claim 5, 7-13, 17-24, 26, 28-32, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Valencia et al and Wallace system as applied to claims 1, 24, 28 above, and further in view of Mori et al (U.S. 5,880,446).

As per claims 24, 26, 28, and 30, the modified Valencia et al and Wallace system discloses examining at least a part of the unique bit string; comparing the at least a part of the unique bit string examined with stored information; and authenticating the party only if the at least a part of the unique bit string examined matches the stored information (see Valencia and Wallace as applied to claim 1).

The modified Valencia et al and Wallace system fails to disclose the unique bit string uniquely identifies the party and an ingress location of the network.

However, Mori et al teaches such information (see column 14 lines 19-40).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Mori et al's

Art Unit: 2137

information as part of the unique bit string of the modified Valencia et al and Wallace system.

Motivation to do so would have been to include information about the buyer in the transaction (see column 14 lines 19-40).

As per claim 5, the modified Valencia et al, Wallace and Mori et al system discloses the type of transaction is selected from a group of transaction types consisting of: transactions greater than a predetermined amount; transactions less than a predetermined amount; purchases delivered to a credit card billing device; and purchases delivered to an address other than a credit card billing address (see Mori et al column 14 lines 19-40).

As per claims 7-13 the modified Valencia et al, Wallace and Mori et al system discloses the at least a part of the unique bit string examined identifies a location at which packets from the party to the transaction entered the network; a group to which an individual, who is a party to the transaction, belongs; a customer that is a party to the transaction; a customer identification; an individual user identification; a network ingress location (see Mori et al column 14 lines 19-40).

As per claim 17, the modified Valencia et al, Wallace and Mori et al system discloses tracking a network ingress location at which a packet associated with a transaction originated,

Art Unit: 2137

wherein packets entering the network have at least a part of a layer 2 information replaced with a unique bit string, the method comprising: examining at least a part of the unique bit string; and determining the network ingress location from the at least a part of the unique bit string (see Wallace and DLL as applied to claim 1 where the transaction data now contains the location data of Mori et al column 14 lines 19-40).

As per claims 18-21, the modified Valencia et al, Wallace and Mori et al system discloses the at least a part of the unique bit string examined identifies an individual who is a party to the transaction; a group to which an individual, who is a party to the transaction, belongs; a customer that is a party to the transaction; a customer identification; an individual user identification; a network ingress location (see Mori et al column 14 lines 19-40).

As per claims 22-23, the modified Valencia et al, Wallace and Mori et al system discloses the unique bit string is provisioned and controlled by a network service provider (see Wallace column 2 lines 5-29).

As per claims 27, 31 the modified Valencia et al, Wallace and Mori et al system discloses the unique bit string identifies a logical port at which the packet entered the network (see Mori et al column 14 lines 19-40).



Art Unit: 2137

As per claim 32, the modified Valencia et al, Wallace and Mori et al system discloses no information in addition to the unique bit string is needed for authentication the party to the transaction (see Wallace column 2 lines 5-29).

As per claim 38, the modified Valencia et al, Wallace and Mori et al system discloses the layer 2 header information is a MAC header (see Nguyen column 10 lines 46-67 as applied to DLL).

#### ***Response to Arguments***

7. Applicant's arguments filed 06/08/2006 have been fully considered but they are not persuasive. Applicant argues: the L2F Reference (Valencia et al) fails to disclose replacing at least part of layer 2 header information with a unique bit string, and does not disclose using the unique bit string to determine an ingress location; Wallace fails to disclose replacing at least part of layer 2 header information with a unique bit string, and does not disclose using the unique bit string to determine an ingress location; and Mori fails to disclose replacing at least part of layer 2 header information with a unique bit string, and does not disclose using the unique bit string to determine an ingress location.

With respect to Applicant's argument that the L2F Reference (Valencia et al) fails to disclose replacing at least part of

Art Unit: 2137

layer 2 header information with a unique bit string, the K bit is considered to be part of the Packet key (page 14 section 4.2.11) because without the K bit the key would not be included or ignored. Therefore, the K bit is not set (i.e. is equal to 0) when no key is present and when a key is to be included the 0 is replaced with a one. Hence, part of the layer 2 header is replaced (0 replaced with a 1), where the 1 is considered part of the Packet Key described in section 4.2.11 (page 14) of Valencia et al. and the remainder of the unique bit string corresponds to the key included in the header shown in the diagram on page 11.

With respect to Applicant's argument that the L2F Reference (Valencia et al) and Wallace fail to disclose using the unique bit string to determine an ingress location, Valencia et al and Wallace were not relied upon to teach this limitation; Mori et al teaches this limitation. Similarly, with respect to Applicant's argument that Wallace and Mori fail to disclose replacing at least part of layer 2 header information with a unique bit string, Wallace and Mori were not relied upon to teach this limitation; Valencia et al teaches this limitation. Applicant is reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413,

Art Unit: 2137

208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

With respect to Applicant's argument that Mori does not disclose using the unique bit string to determine an ingress location in column 14 lines 13-40 Mori teaches including the IP address of the starting point of a transaction in encrypted form for authenticating the transaction and as described above at the time of the invention it would have been obvious to one of ordinary skill in the art to include this information in the unique bit string of the modified Valencia et al and Wallace system. Motivation to do so would have been to include information about the buyer in the transaction (see Mori column 14 lines 19-40).

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

Art Unit: 2137

expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:00am - 4:30pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2137

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJP

  
EMMANUEL L. MOISE  
SUPERVISORY PATENT EXAMINER